FINDING OF NO SIGNIFICANT IMPACT
FOR THE CITY OF MILES CITY
CARBON HILL WATER TANK REPLACEMENT PROJECT

TO: ALL INTERESTED PERSONS

Date: October 22, 2007
Action: Constructing a replacement water tank for the City of Miles City
Location of Project: Miles City, Montana
DWSRF Funding: $2,400,000
Total Project Cost: $2,450,000

An environmental review has been conducted by the Montana Department of Environmental Quality for the proposed replacement of the Carbon Hill Water Tank in Miles City. The purpose of the project is to make improvements to the city's water system that are needed to ensure an adequate supply of water necessary to protect public health.

The affected environment will primarily be in the vicinity of the existing water tank. The human environment affected will include Miles City and the surrounding area. Based on the information provided in the references below, the project is not expected to have any significant adverse impacts upon terrestrial and aquatic life or habitat, including endangered species, water quality or quantity, air quality, geological features, cultural or historical features, or social quality.

This project will be funded with a low-interest loan from the Montana Drinking Water State Revolving Fund (DWSRF) Program, administered by the Montana Department of Environmental Quality and the Montana Department of Natural Resources and Conservation.

The Department of Environmental Quality utilized the following references in completing its environmental review of this project:

- Carbon Hill Water Tank Evaluation and Recommendation, July 2006, prepared by Kadrmas, Lee and Jackson, Billings, Montana.
- Carbon Hill Water Tank Project Environmental Checklist, September 11, 2007, prepared by Kadrmas, Lee and Jackson, Billings, Montana..

In addition to these references, letters were sent to the Montana Department of Fish, Wildlife and Parks, the Montana Department of Natural Resources and Conservation, the Montana Department of Environmental Quality, the Montana Department of Transportation, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service and the Montana State Historic Preservation Office. Responses were received from the U.S. Army Corps of Engineers, the Montana Department of Transportation and the Montana State Historic Preservation Office. These references are available for review upon request by contacting:

Gary J. Wiens, P.E.
Department of Environmental Quality
P.O. Box 200901
Helena, Montana 59620-0901
Phone: (406) 444-7838
Email: gwiens@mt.gov

Bruce Larson
Director of Utilities
City of Miles City
P.O. Box 910
Miles City, Montana 59301

Comments on this finding or on the environmental assessment may be submitted to the Department of Environmental Quality at the above address. Comments must be postmarked no later than November 30, 2007. After evaluating substantive comments received, the department will revise the environmental assessment or determine if an environmental impact statement is necessary. Otherwise, this finding of no significant impact will stand if no substantive comments are received during the comment period or if substantive comments are received and evaluated and the environmental impacts are still determined to be non-significant.

Signed,

_____

Todd Teegarden, Chief
Technical & Financial Assistance Bureau

c: file

G:\TFA\DWSRF\PROJ\MilesCity3\MilesCity3FONSI.doc

CITY OF MILES CITY
CARBON HILL WATER TANK REPLACEMENT PROJECT

ENVIRONMENTAL ASSESSMENT

I. COVER SHEET

A. PROJECT IDENTIFICATION

Applicant:	City of Miles City
Address:	P.O. Box 910
	Miles City, MT 59301
Project Number:	Not yet assigned

B. CONTACT PERSON

Name:	Bruce Larson, Director of Utilities
	City of Miles City
Address:	P.O. Box 910
	Miles City, MT 59301
Telephone:	(406) 232-3493

C. ABSTRACT

The Miles City water system provides potable water to a population of approximately 8500. In recent years the city's Carbon Hill water tank has exhibited signs of structural deterioration and because of failure has been removed from service. After determining that the existing site could be stabilized by removing and replacing unsuitable soils, the city has decided to build the replacement facility at the present tank site. The project will be confined to the area adjacent to the existing tank site. The removed unsuitable soils will be placed on the north and northwest sides of the hill to increase the stability of the hillside. The existing water main connecting the tank to the city's distribution system will also be replaced in the same alignment as the existing main.

The proposed water system improvements will enable the city to maintain compliance with the Safe Drinking Water Act and will ensure that drinking water meeting state and federal regulations will continue to be safely and reliably provided to all consumers.

The project will be funded in part by a Drinking Water State Revolving Fund loan. Environmentally sensitive characteristics such as wetlands, floodplains and threatened or endangered species are not expected to be adversely impacted as a consequence of the proposed project. No significant long-term environmental impacts were identified during the preparation of this document.

D. COMMENT PERIOD

Thirty calendar days.

II. PURPOSE AND NEED FOR ACTION

A. EXISTING WATER TANK

The existing Carbon Hill Water Tank was constructed in 1953 near mile marker 138 on Interstate I94. Constructed of pre-stressed concrete, it had a design life of 80 to 100 years. However, in the late 1980s problems became evident, first by the occurrence of spalding of the exterior concrete. This deterioration of the protective concrete exposed the pre-stressed wire wrap to the effects of corrosion. Concurrently, water leaks saturated the surrounding soils and led to settlement of the fill material supporting the tank, eventually resulting in damage to the floor and wall of the tank. Until removed from service the existing tank provided most of the city's water storage.

B. PROPOSED PROJECT

The proposed project includes the following improvements:

1. Removal of the existing soil materials, with placement on the north and northwest sides of Carbon Hill,
2. Construction of a new 1.5 mg steel water tank,
3. Replacement of the tank overflow piping, and
4. Construction of a new water main to connect the new tank to the city's distribution system.

By constructing a new storage facility, the city will ensure that an adequate supply of safe water will continue to be delivered to the users of the system and public health and safety with respect to the water supply will be ensured.

III. ALTERNATIVES INCLUDING THE PROPOSED ACTION

A. STORAGE ALTERNATIVES

Three alternatives for addressing the city's water storage needs were considered:

1. DO NOTHING – Since the existing facility is considered unsafe, placing the tank back in service is not acceptable. Repair of the tank is not feasible or economically justified. Failure to replace the tank could lead to water shortages or reduced pressure in the distribution system.

2. REPLACE TANK IN THE CURRENT LOCATION – This alternative, the proposed action, would involve the construction of a new tank in the

same general location as the existing tank

3. REPLACE TANK IN A NEW LOCATION – During project evaluation, a new site south of Interstate I94 was considered. This alternative, which would have involved the time and expense of obtaining additional property, was dropped once soils investigations determined that the existing site was usable.

B. COST/BENEFIT COMPARISONS

Table 1 provides a comparison of the two tank location alternatives. The lowest net present worth identifies the most cost-effective alternative.

Table 1. Alternative Evaluation

Alternative	New Present Worth
Pre-stressed concrete tank at current location	$3,194,392
Cast-in-place concrete tank at current location	$2,640,357
Steel tank at current location	$2,123,223
Pre-stressed concrete tank at new location	$3,470,602
Cast-in-place concrete tank at new location	$2,916,567
Steel tank at new location	$2,409,663

Further analysis was performed by ranking the alternatives under the following criteria: capital cost, net present worth, operation and maintenance complexity, risk of implementation and public acceptance. The steel tank at the current location received the best rating. Based on the results of both evaluations, the steel tank at the current location was chosen.

C. TOTAL ESTIMATED COSTS

The estimated total cost of the proposed project is $2,450,000, based on construction of the steel tank at the current site. The city anticipates receiving a State Revolving Fund loan of $2,400,000. Incremental water rate increases have been implemented over the last few years to fund improvements to the city's

water system, with the next increase scheduled in early 2008.

IV. AFFECTED ENVIRONMENT

A. PLANNING AREA

The city of Miles City is located in Custer County. According to the 2000 census, there were 8457 people, 3528 households and 2194 families residing in the city. The median household income in the city was $29,847 and the median income for a family was $41,190.

Construction of the proposed project should take no more than a year after award of a contract. Construction is anticipated to begin in late 2007.

B. FLOW PROJECTIONS

The city's water plant produces an average of 1.5 million gallons per day, with a peak day of 4 million gallons per day. The water treatment plant capacity is 7 million gallons per day, well above current and foreseeable demands.

C. NATURAL FEATURES

Miles City is located in southeastern Montana along the Yellowstone River. The Tongue River flows along the western edge of town where it joins the Yellowstone River. The Powder River flows east of the city through Custer County. This area is largely grassland and prairie.

The climate of Miles City is typical of the Great Plains. Maximum precipitation occurs in May and June. Greater than 0.8 inches occurs during April, July, August, September, and October, and less than 0.8 inches occurs during January, February, March, November, and December. Monthly average temperatures are warmer than 68 degrees F. in July and August. Average minimum temperatures are below freezing in January, February, March, November, and December.

None of the project area lies within the 100-year or 500-year floodplains, as defined by the Federal Emergency Management Agency maps.

The U.S. Fish & Wildlife Service identifies seven species in Montana as endangered and eight species as threatened. The endangered animal species include the whooping crane, Eskimo curlew, black-footed ferret, pallid sturgeon, white sturgeon, least tern and gray wolf. Threatened animal species in the state include the grizzly bear, bald eagle, Canada lynx, piping plover and bull trout. Threatened plant species are the Spalding's catch-fly, water howellia and Ute Ladies'-tresses. Additionally, three animal species, the warm springs beetle, yellow-billed cuckoo and arctic grayling, and one plant species, the slender moonwort, are listed as candidate species for a threatened or endangered designation.

All construction will take place on the site of the existing water storage tank and pipeline right-of-way. No native vegetation is expected to be disturbed by the construction. Similarly, the site does not provide prime habitat for wildlife, and as a result no impacts on wildlife are anticipated.

V. ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

A. DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS

1. Housing and Commercial Development – Developed land use within the city limits is a mix of residential, commercial and light industrial. Although intended to accommodate anticipated growth, the proposed improvements are not expected to have an impact on housing and commercial development.

2. Future Land Use – No adverse impacts to land use are expected from the proposed project.

3. Floodplains and Wetlands – None of the project area lies within the 100-year or 500-year floodplains. No wetlands have been identified on the proposed construction site.

4. Cultural Resources – The construction site is previously-disturbed land. After reviewing the project description, Damon Murdo of the State Historic Preservation Office concluded that there is a low probability cultural properties will be impacted; therefore, a cultural resource inventory is not warranted. However, he recommended that the Historic Preservation Office be contacted in the event cultural resources are identified during construction.

5. Fish and Wildlife – No impacts on biological resources in the area are anticipated by the proposed project.

6. Water Quality – Impacts on water quality are expected to be minor and short-term. Short-term impacts on water quality can be controlled through proper construction practices.

7. Air Quality - Short-term negative impacts on air quality may occur from heavy equipment, dust and exhaust fumes during project construction. Construction practices and dust abatement measures will be implemented during construction to control dust, thus minimizing this problem.

8. Public Health – The proposed project is not expected to have adverse impacts on public health, and should instead enhance public health by upgrading water storage facilities.

9. Energy - During construction of the proposed project, additional energy will be consumed, causing a direct short-term impact on this resource.

10. Noise - Short-term impacts from increased noise levels may occur during construction of the proposed project improvements. Construction activities are anticipated to last no more than twelve months and will occur only during daylight hours.

B. UNAVOIDABLE ADVERSE IMPACTS

Short-term construction-related impacts, such as noise, dust and traffic disruption, will occur but can be minimized through proper construction management. Energy consumption during construction cannot be avoided.

VI. PUBLIC PARTICIPATION

Since the extent of deterioration of the existing Carbon Hill tank was not evident until recently, the proposed project was not identified in the city's 2004 capital improvements plan. On November 13, 2007, the city will hold a public hearing on the proposed rate increase to fund this project.

VII. REFERENCE DOCUMENTS

The following documents were used in the environmental review of this project and are considered to be part of the project file:

.

A. Carbon Hill Water Tank Evaluation and Recommendation, July 2006, prepared by Kadrmas, Lee and Jackson, Billings, Montana.

B. Carbon Hill Water Tank Project Environmental Checklist, September 11, 2007, prepared by Kadrmas, Lee and Jackson, Billings, Montana

VIII. RECOMMENDATION FOR FURTHER ENVIRONMENTAL ANALYSIS

❑ EIS ❑ More Detailed EA ❑ No Further Analysis

EA prepared by:

_____ _____

Name Date

EA reviewed by:

_____ _____

Name Date